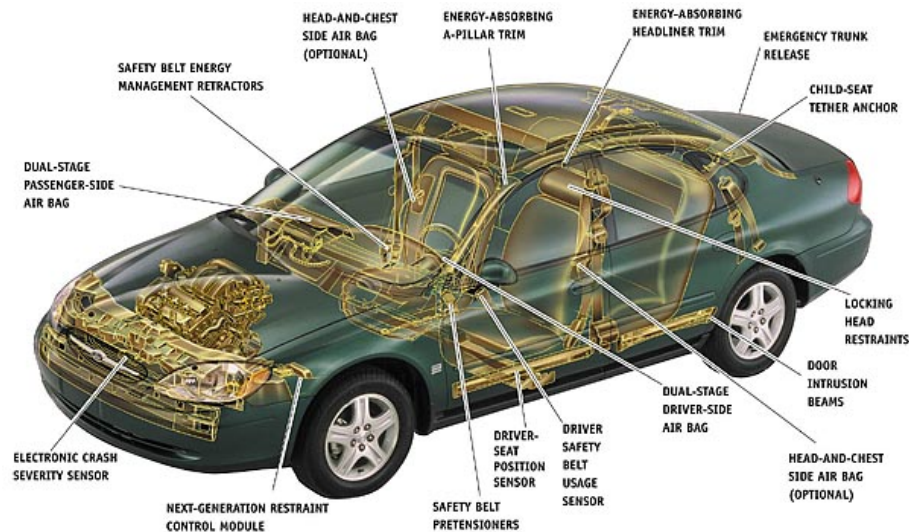


Montana Driver Education and Training

Strategies for Managing Risk with Vehicle and Highway Designs Part I



Source: FHWA

Standards and Benchmarks

1. Laws and Highway System

- a. know the laws outlined in the Montana Driver's manual
- b. understand the laws outlined in the Montana Driver's manual
- c. consistently demonstrate knowledge and understanding by responsible adherence to highway transportation system traffic laws and control devices

2. Responsibility

- a. recognize the importance of making safe and responsible decisions for owning and operating a vehicle
- d. develop habits and attitudes with regard to responsible driving

6. Risk Management

- a. understand driver risk-management principles
- b. demonstrate driver risk-management strategies
- c. develop driver risk-management habits and attitudes

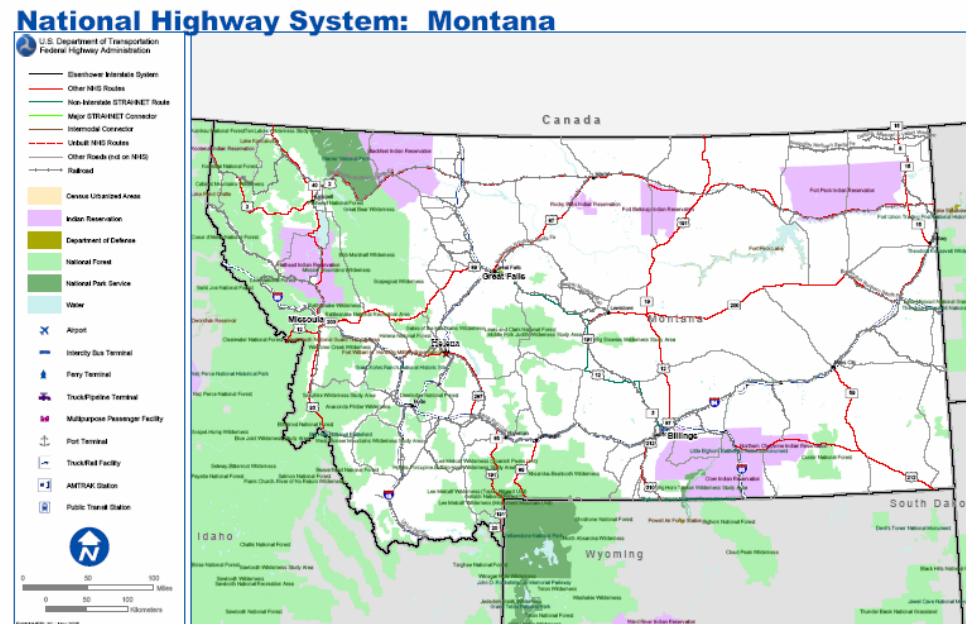
7. Lifelong Learning

- a. understand past, present and future vehicle and roadway design, and driving cultures
- b. describe past, present and future motor vehicle laws
- c. understand benefits of a lifelong learning approach to driving
- e. identify opportunities for lifelong education in driving



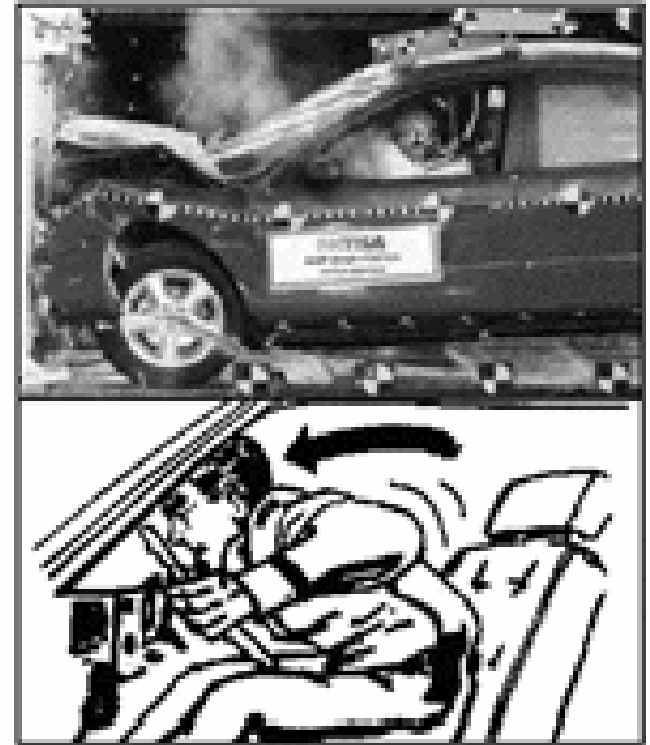
DEFINING RISK

- For more than 100 years, the Federal Highway Administration (FHWA) and state and local departments of transportation have partnered to build the nation's highways; almost four million miles of road providing mobility to American travelers



DEFINING RISK

- ❑ The National Highway Traffic Safety Administration (NHTSA) is the agency of the Department of Transportation that conducts crash tests of new vehicles to determine the level of protection for drivers and passengers during frontal and side impact crashes



Source: NHTSA



DEFINING RISK

- ❑ In response to increasing public concern about automobile safety, many manufacturers are designing vehicles that incorporate crash protection and safety features beyond the minimum federal standards



DEFINING RISK

- ☐ Driving is a high-risk activity
- ☐ A crash occurs every five seconds
- ☐ Property damage occurs every seven seconds
- ☐ Injury occurs every 15 seconds
- ☐ Fatalities occur every 13 minutes



DEFINING RISK

- ❑ Motor vehicle crashes are the leading cause of death for teen-agers ages 15-20



Source: Oregon Department of Transportation



DEFINING RISK

- ❑ 77% of all drivers have no idea of the level of risk they take when driving
- ❑ 83% of all drivers think they have total control of their vehicle

Source: Oregon Department of Transportation



OPI Linda McCulloch, Superintendent
Montana Office of Public Instruction
www.opi.mt.gov

DEFINING RISK

- ❑ When drivers feel they have a lot of control in preventing collisions, it follows that they neither see themselves at risk nor see a need to follow safety precautions
- ❑ 83% of all drivers in a study saw themselves at minimal risk in a collision
- ❑ 91% of the drivers said it would not be their fault if they were involved in a crash



2004 Crash Clock

Crime



1 murder
every **32*** minutes

1 aggravated assault
every **37*** seconds

1 violent crime
every **23*** seconds

1 property crime
every **3*** seconds

Crash



1 fatality
every **12*** minutes

1 injury
every **11*** seconds

1 property damage
crash
every **7*** seconds

1 law enforcement
reported crash
every **5*** seconds



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Sources: NHTSA Traffic Safety Facts, 2004 and Uniform Crime Report, 2004 Department of Justice
* Rounded to nearest whole number



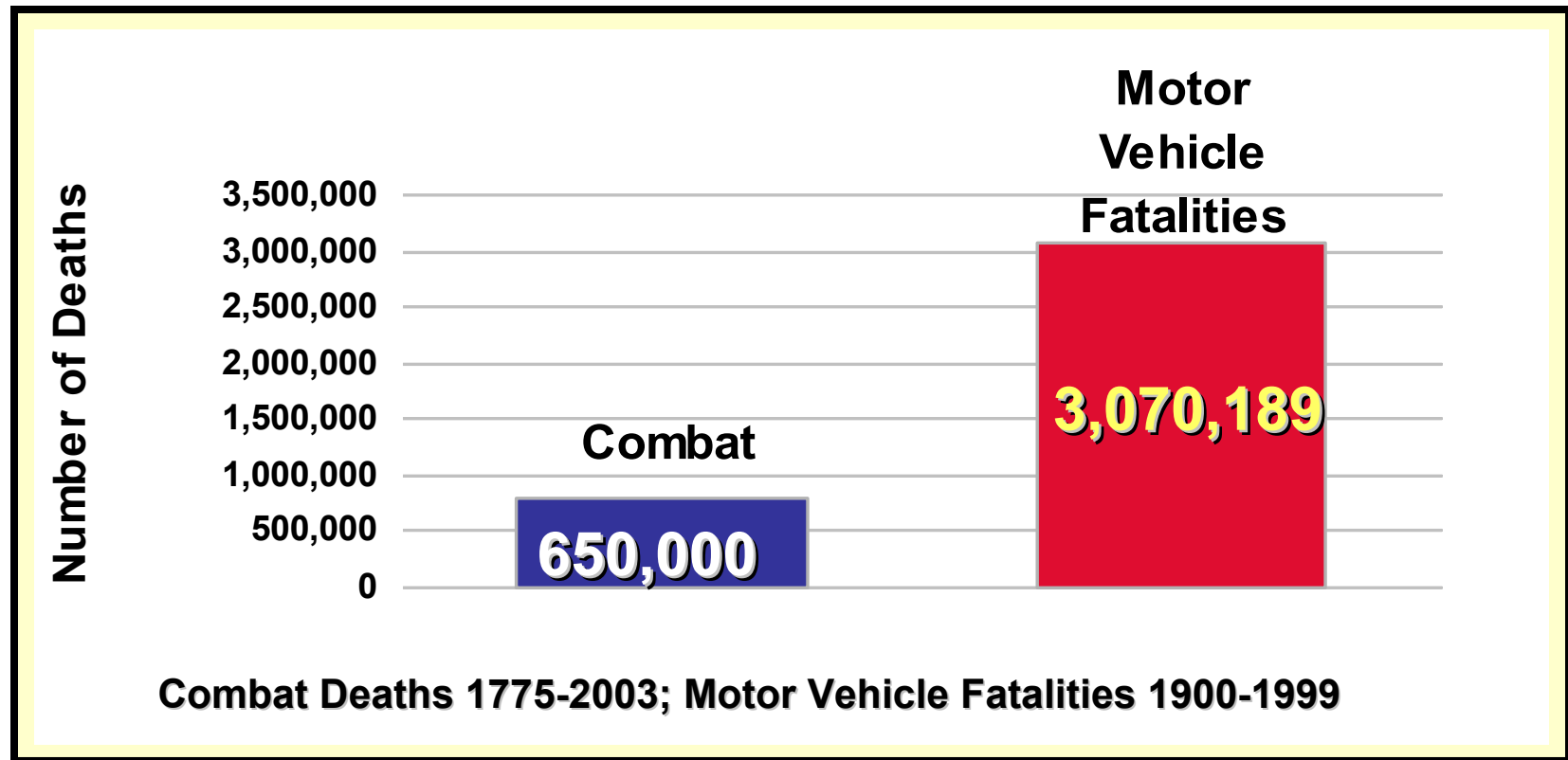
Septemer 11, 2001 Occurs Every 25 Days On Our Nation's Highways



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Americans Killed in Combat VS.

Motor Vehicle Fatalities



2003 Fatality Statistics



- ☐ 42,116 were killed in traffic crashes
- ☐ The number of fatalities has remained the same over the past few years
- ☐ The fatality trend is stable, but how can we call 42,000 dead a success?



Our Nation's Traffic Fatalities



- Over 42,000 motor vehicle fatalities occur annually
- 117 each day
- One every 13 minutes
- 10 teens each day



DEFINING RISK—Driver Behavior

- ❑ 90% of fatal crashes are the results of driver behavior
- ❑ 21% of those crashes are attributed to aggressive driving
- ❑ 90% of the fatalities could have been avoided if the driver had reacted one second earlier



DEFINING RISK—Driver Research

- ❑ 50% of all rear-end and intersection related collisions and 30% of oncoming traffic collisions could have been avoided had the driver recognized danger **1/2 second** earlier and reacted correctly



Motor Vehicle Crashes and Teens

- ❑ Motor vehicle crashes are the **LEADING** cause of death for teen-agers ages 15-20
- ❑ Teen-age drivers ages 15-20 account for **7%** of all licensed drivers of all ages, but account for **14%** of all drivers involved in fatal crashes



TEEN DRIVERS: Driving Behaviors

A study of *Specific Driving Behavior Deficiencies of 16-Year-Olds that Cause Crashes*
(McKnight 2002)

- 1) Attention 23%
- 2) Adjusting speed 20.8%
- 3) Searching ahead 19.1%
- 4) Searching to the side 14.2%
- 5) Maintaining space 9.8%
- 6) Tie search to rear/emergencies 9.4%



Teen Driver Facts

- ❑ Sixty-three percent of teen-age passenger deaths take place when another teen is driving the vehicle
(Insurance Institute for Highway Safety, IIHS, 2001)
- ❑ Forty-one percent of fatal crashes involving teen-agers occur at night (between the hours of 9:00 p.m. and 6:00 a.m.)
(IIHS, 2001)



Teen Driver Facts

- ❑ In 2000, the estimated economic cost of police-reported crashes involving drivers between 15-20 years old was \$32.8 billion (NHTSA, 2001)



Teen Driver Facts

- ❑ Sixteen-year-olds have almost ten times the crash risk of drivers age 30-59 (Williams, A.F., 1996)
- ❑ In 2000, of the young drivers who had been drinking and were killed in crashes, 80% were not wearing safety belts (NHTSA, 2001)
- ❑ Twenty-one percent of young drivers killed in fatal crashes in 2000 had a BAC of 0.10 or higher (NHTSA, 2001)



Teen Driver Facts

- ❑ Male drivers spend an average of 81 minutes a day driving
- ❑ If a male receives his license at age 16 and drives for 60 years, he will drive 29,565 hours in his lifetime
- ❑ That is a equivalent to driving 24 hours a day for 1,232 days or 3.375 years of his life (Source: USA Today USA Snapshots-10/12/98)

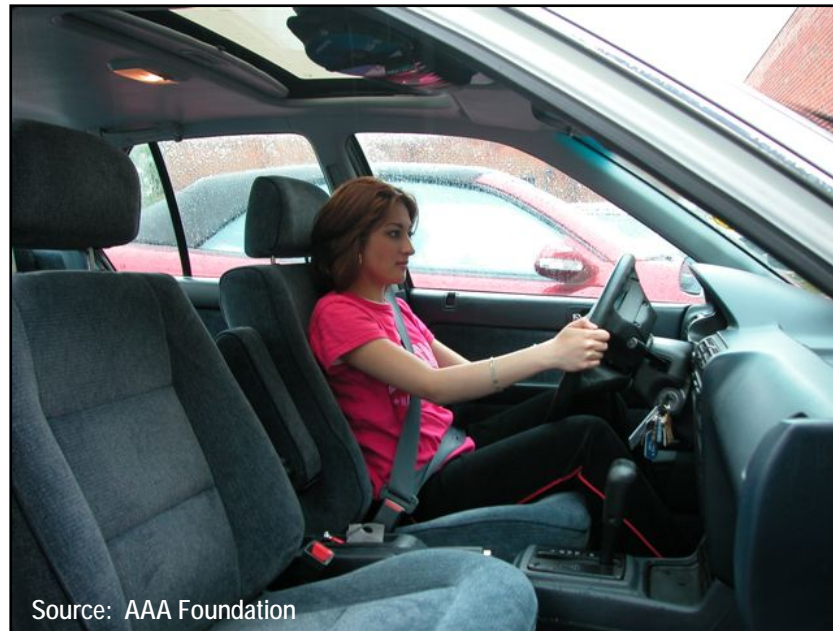


Source: AAA Foundation



Teen Driver Facts

- ❑ Female drivers spend an average of 64 minutes a day driving
- ❑ If a female receives her license at 16 and drives for 60 years, she will drive 23,360 hours in her lifetime
- ❑ That is equivalent to driving 24 hours a day for 973 days (Source: USA Today USA Snapshots-10/12/98)



Source: AAA Foundation



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Control Exposure To Risk

Safety Belts are the most effective means of reducing fatalities and serious injuries when traffic crashes occur

- ❑ Estimated to save 9,500 lives in America each year
- ❑ Lap/shoulder belts, when used properly, reduce the risk of fatal injury to front seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%
- ❑ In the United States fewer than 60% of both adults and children who die in traffic crashes were properly restrained



Control Exposure To Risk

Use the ten good driving habits to reduce risk:

1. Driver vehicle readiness
2. See clear path before moving
3. Keep the car in balance
4. Use Reference Points
5. Do Line-of-Sight
Path-of-Travel searching
6. Turn decisions into actions
7. Control the intersection
8. Get rear zone control
9. Control the front vehicle
10. Be courteous to others

